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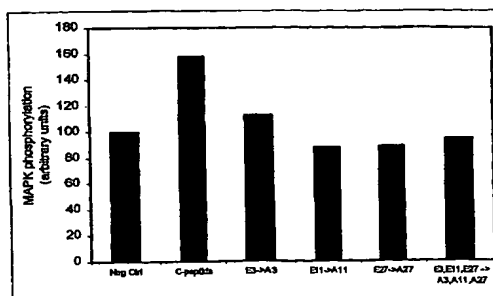
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(54) Title: FRAGMENTS OF PROINSULIN C-PEPTIDE



(57) Abstract: The present invention relates to peptides being the N-terminal fragment of human proinsulin C-peptide and having the sequence EAEDLQVGQVEL (SEQ ID No: 2) or a fragment or peptide derivative thereof retaining the functional ability of the N-terminal fragment to contribute to C-peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting a conformation where said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the α-carbons thereof; and wherein said peptide derivative does not include native C-peptide of any species nor human C-peptide 1-15, 1-24 or 1-26 or rat C-peptide 1-26. The invention also relates to peptides having an amino acid sequence comprising (i) the N-terminal fragment of human insulin C-peptide having the sequence EAEDLQVGQVEL (SEQ ID NO. 2) or (ii) a fragment or peptide derivative of amino acid sequence SEQ ID NO. 2 retaining the functional ability of said N-terminal fragment to contribute to C-peptide activity, wherein said fragment or peptide derivative comprises two acidic amino acid residues and is capable of adopting a conformation wherein said two acidic amino acid residues are spatially separated from one another by a distance of 9-14 Å between the α-carbons thereof; said peptide having C-peptide activity, but not including native C-peptide of any species nor human C-peptide 1-15, 1-24 or des 13-17. The invention further relates to peptides having the formula X<sub>n</sub>-Y-X<sub>m</sub>-Y-X<sub>p</sub> where X is any amino acid, Y is an acidic amino acid, n=0-6, m=5-9 and p=0-6. First and second medical indications, pharmaceutical compositions and products for use as a combined preparation are also covered by the present invention.





*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*